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Influenza Vaccination Coverage among Pregnant Women in Rhode Island: The Importance of the Prenatal Care Provider Role

Pregnant women who were either recommended or offered influenza vaccine by their health care providers were 15.5 times more likely to be vaccinated than women who were not recommended or offered the vaccine

Background

Pregnant women have increased morbidity and mortality from seasonal influenza infection, likely due to the physiological changes associated with pregnancy.¹ It has also been reported that pregnant women have higher rates of hospitalization and death with H1N1 infection.² Influenza vaccination is the most effective way to protect pregnant women from influenza.³ A recent study demonstrated that vaccination during pregnancy significantly reduced influenza illness among infants up to 6 months of age who were too young to be vaccinated.⁴

Historically, pregnant women have the lowest rates of seasonal influenza vaccination among all adult priority groups. Prenatal health care providers play a critical role in increasing rates of influenza vaccination among pregnant women by recommending and providing influenza vaccine to their patients.^{5,6}

Influenza Vaccination Recommendations for Pregnant Women

Due to the increased risk of complications and death from influenza, pregnant women are considered a top priority group for receipt of both seasonal and H1N1 influenza vaccines.^{2,3} The Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) and the American College of Obstetricians and Gynecologists recommend that women who are or plan to be pregnant during influenza season should receive seasonal and H1N1 influenza vaccines as soon as possible and during any trimester of pregnancy.^{2,3} Although ACIP originally made this recommendation for women in the second and third trimesters, in 2004 the recommendation was expanded to include women in all trimesters.⁷ Inactivated influenza vaccines for both seasonal and H1N1 are considered safe and effective during any stage of pregnancy and are proven to benefit both the mother and baby.^{2,3}

Recommended Actions for Prenatal Care Providers

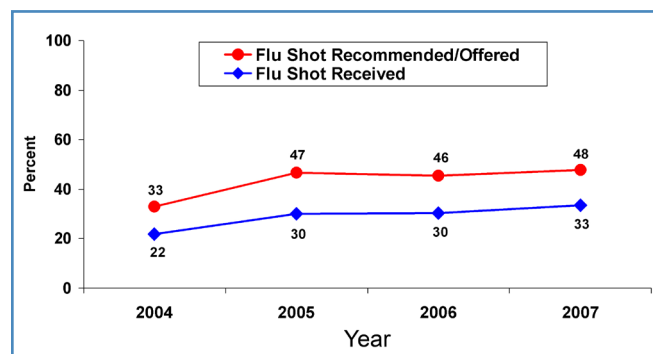
Despite the fact that influenza vaccination coverage rates among pregnant women have improved slightly in the last few years, there is still much work to be done to protect pregnant women and infants from this vaccine-preventable disease.

- Educate staff and pregnant women about the importance and safety of influenza vaccination during pregnancy
- Issue standing orders for influenza vaccination of pregnant women
- Establish an influenza vaccination reminder system in their practices
- Post influenza prevention announcements and provide brochures to prompt vaccination requests
- Offer vaccination to pregnant women at the earliest opportunity and throughout flu season (October–April)
- Vaccinate for both seasonal and novel influenza, such as H1N1 (may be administered at the same visit)
- Vaccinate postpartum women who were not vaccinated during pregnancy preferably before hospital discharge or at 6 week postpartum visits
- Educate staff and postpartum women that breastfeeding is not a contraindication to vaccination

The Rhode Island Experience

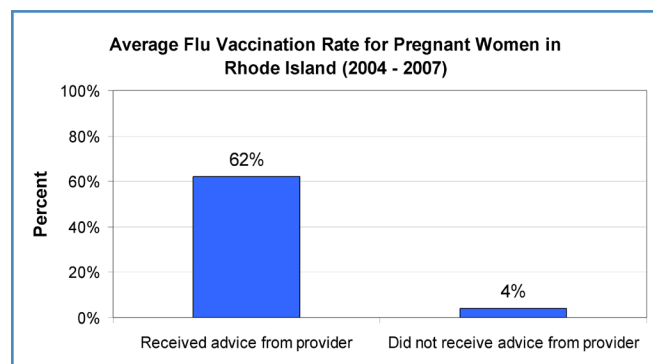
Since 2004, Rhode Island has collected information on influenza vaccination during pregnancy through CDC's Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS data are used to identify women and infants at high risk for health problems, and to measure progress towards goals in improving the health of mothers and infants.⁸

While overall influenza vaccination rates for pregnant women have remained low in Rhode Island, there was a 50% increase in vaccination rates from 22% in 2004 to 33% in 2007.^{5,6} In addition, the percentage of women who reported that their health care provider recommended or offered influenza vaccination during their pregnancy increased 45%, from 33% in 2004 to 48% in 2007.^{5,6} Although Rhode Island's coverage rate is higher than the national rate of 24%,³ the results for both vaccine uptake and recommendation are still alarmingly low.



The reasons for these increases, especially during 2004–2005, could be attributed to ACIP's 2004 recommendation to include vaccination of pregnant women in their first trimester.^{5,6} Another reason may be media attention to the influenza vaccine shortage that year, increasing awareness among both pregnant women and their providers.^{5,9}

Rhode Island PRAMS data demonstrate that health care providers play a critical role in the acceptance of influenza vaccine by pregnant women. Pregnant women who were either recommended or offered influenza vaccine by their health care providers were 15.5 times more likely to be vaccinated than women who were not recommended or offered the vaccine (62% vs. 4%).^{5,6}



The Rhode Island Department of Health's Role in Improving Vaccination Rates

In Rhode Island, influenza vaccine is purchased and distributed to providers at no cost for all children and adults. All prenatal care providers are strongly encouraged to enroll in the program to receive influenza vaccine for their pregnant patients.

In 2009, Rhode Island developed a strategic plan to increase influenza vaccination rates among pregnant women. Posters advising women about the safety of influenza vaccine were developed and distributed.

For more information about vaccination go to:

- CDC's site on Guidelines for Vaccinating Pregnant Women
http://www.cdc.gov/h1n1flu/vaccination/providers_qa.htm
<http://www.cdc.gov/vaccines/pubs/preg-guide.htm>
- Rhode Island Immunize for Life Program
<http://www.health.state.ri.us/programs/immunization/index.php>

References

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- 2 CDC. Use of Influenza A (H1N1) 2009 Monovalent Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. *MMWR*. 2009;58(Early Release):1-8.
- 3 CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2008. *MMWR*. 2008;57(RR07):1-60.
- 4 Zaman K, Roy E, Arifeen S, et al. Effectiveness of maternal influenza immunization in mothers and infants. *New England Journal of Medicine*. 2008;359:1555-1564.
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- 6 Kim H, Raymond P, Paine V, Cain R, Viner-Brown S. Seasonal influenza vaccination coverage among pregnant women in Rhode Island. *Medicine & Health/Rhode Island*. 2009;92(10):345-347.
- 7 CDC. Influenza Vaccination in Pregnancy: Practices Among Obstetrician-Gynecologists --- United States, 2003--04 Influenza Season. *MMWR*. 2005;54(41):1050-1052.
- 8 CDC. Pregnancy Risk Assessment Monitoring System (PRAMS). <http://www.cdc.gov/prams>.
- 9 Brewer N, Hallman W. Subjective and objective risk as predictors of influenza vaccination during the vaccine shortage of 2004--2005. *Clinical Infectious Diseases*. 2006;43:1379-1386.